

ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): Office of Oceanic and Atmospheric Research (OAR) and National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: A Cooperative Institute to Support NOAA's N.W. Research Facilities in the Area of Marine Resources

Announcement Type: Initial

Funding Opportunity Number: NOAA-OAR-CIPO-2011-2002774

Catalog of Federal Domestic Assistance (CFDA) Number: 11.432, OAR Joint and Cooperative Institutes

Dates: Proposals must be received by OAR no later than February 11, 2011, 5:00 p.m., E.T. For applications submitted through Grants.gov, a date and time receipt indication will form the basis for determining timeliness. The proposal must be validated by Grants.gov in order to be considered timely. For those applicants not having access to the Internet, one signed original and two hard copy applications must be received by NOAA at the following address: NOAA/OAR, Attn: Dr. John Cortinas, 1315 East West Highway, Room 11326, Silver Spring, Maryland 20910. Use of U.S. mail or another delivery service must be documented with a receipt. No facsimile or electronic mail proposal submissions will be accepted. Proposals submitted after 5:00 p.m., E.T., February 11, 2011 will not be considered. (Note that late-arriving hard copy proposals provided to a delivery service on or before 5 p.m., E.T., February 11, 2011 will be accepted for review if the applicant can document that the proposal was provided to the guaranteed delivery service by the specified closing date and time and if the proposal is received by OAR no later than 5 p.m., two business days following the closing date.) October 1, 2011 should be used as the proposed start date on proposals.

Funding Opportunity Description: The NOAA Office of Oceanic and Atmospheric Research (OAR) and the National Marine Fisheries Service (NMFS) invite applications for the establishment of a cooperative institute (CI) to support NOAA research facilities in the northwest U.S. in the area of marine resources that will focus on the themes of: (1) seafloor processes, (2) marine mammal acoustics, (3) marine ecosystems, and (4) protection and restoration of marine resources.

The CI will be established at a research institution not only having outstanding graduate degree programs in NOAA-related sciences, but also located within a commuting distance that allows

direct interactions with CI and NOAA scientists at NOAA's Pacific Marine Environmental Laboratory, Northwest Fisheries Science Center, and Alaska Fisheries Science Center offices in Newport, Oregon, on a regular basis. The CI will provide significant coordination of resources among all non-governmental partners and will promote the involvement of students and post-doctoral scientists in NOAA-funded research. If the CI is comprised of multiple member institutions, only the lead institution applying for the award and where the CI will be established must satisfy the commuting distance requirement. This announcement provides requirements for the proposed CI and includes details for the technical program, evaluation criteria, and competitive selection procedures. Applicants should review the CI Interim Handbook prior to preparing a proposal for this announcement (available at www.nrc.noaa.gov/ci).

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The purpose of this announcement is to invite the submission of proposals to establish a CI to support NOAA research facilities in the area of marine resources and to provide details on the application, review, and selection process.

CI Concept/Program Background

A CI is a NOAA-supported, non-Federal organization that has established an outstanding research program in one or more areas that are relevant to the NOAA mission "to understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs." CIs are established at research institutions with outstanding graduate degree programs in NOAA-related sciences. CIs provide significant coordination of resources among all non-government partners and promote the involvement of students and post-doctoral scientists in NOAA-funded research.

NOAA establishes a new CI competitively when it identifies a need to sponsor a long-term (5-10 years) collaborative partnership with one or more outstanding non-Federal, non-profit research institutions. For NOAA, the purpose of this long-term collaborative partnership is to promote research, education, training, and outreach aligned with NOAA's mission; to obtain research capabilities that do not exist internally; and/or to expand research capacity in NOAA-related sciences to:

- * conduct collaborative, long-term research that involves NOAA scientists and those at the research institution(s) from one or more scientific disciplines of interest to NOAA;

- * utilize the scientific, education, and outreach expertise at the research institution(s) that, depending on NOAA's research needs, may or may not be located near a NOAA facility;

- * support student participation in NOAA-related research studies; and

- * strengthen or expand NOAA-related research capabilities and capacity at the research institution(s) that complements and contributes to NOAA's ability to reach its mission goals.

A CI may also partner with one or more research institutions that demonstrate outstanding performance within one or more established research programs in NOAA-related sciences, including Minority Serving Institutions that can contribute to the proposed activities of the CI. CIs conduct research under approved scientific research themes and Tasks (additional tasks can be proposed by the CI):

- * Task I activities are related to the management of the CI, as well as general education and outreach activities. This task also includes support of postdoctoral and visiting scientists conducting activities within the research themes of the CI that are approved by the CI Director, in consultation with NOAA, and are relevant to NOAA and the CI's mission goals;

- * Task II activities usually involve on-going direct collaboration with NOAA scientists. This collaboration typically is fostered by the collocation of Federal and CI employees;

and

- * Task III activities require minimal collaboration with NOAA scientists.

B. Program Priorities

The proposed CI will conduct research under research themes which support NOAA in two of its mission goals: (1) Protect, Restore, and Manage the Use of Coastal and Ocean Resources through an Ecosystem Approach to Management: and (2) Understand climate variability and change to enhance society's ability to plan and respond. These long-term goals are similar to two of the goals listed in NOAA's Next Generation Strategic Plan as well: (1) Healthy Oceans and (2) Climate Adaptation and Mitigation. (Copies of both plans are available at <http://www.ppi.noaa.gov/>.)

The CI will also strongly support "a strategic approach that attracts and maintains a competent and diverse workforce and creates an environment that develops, encourages, and sustains employees as they work to accomplish NOAA's strategic goals," as described in NOAA's 2009-2014 Strategic Plan. To this end, this CI would provide an opportunity to train the next generation of scientists by giving students and post-doctoral scientists a 'hands-on' opportunity to participate in NOAA research activities. This training is extremely important for NOAA as it works to attract a competent and diverse scientific workforce. To support this effort, the NOAA facilities in Newport, Oregon, will provide office space for roughly 40 CI employees and students.

The CI will provide current capabilities and capacity to significantly broaden the intellectual capital available that can contribute to NOAA's research programs by providing access to a pool of talented undergraduates, graduate students, post-docs, and faculty with diverse backgrounds, specialties, tools and approaches. For some of the research activities, the CI may need to work closely with other NOAA-funded programs along the West Coast, particularly other CIs and Sea Grant Colleges, as well as provide significant coordination of resources among non-government partners and promote the involvement of students and postdoctoral scientists in NOAA-funded research.

NOAA has a need to conduct basic ocean ecosystem exploration and research focused on large-scale processes that have recently been shown to, or are suspected to, impact physical, chemical, and biological ocean environments on local to global scales. In particular, NOAA needs research that will 1) result in an understanding of the ocean environmental impacts of the Earth's most extensive and active submarine inputs of heat and mass, submarine volcanism and its associated hydrothermal activity; 2) improve our understanding of the productivity of the coastal shelf ecosystem in the Pacific Northwest and Alaska, coupled with how this productivity varies with changing forcings and how fish stocks respond to these changes in trophic productivity; and 3) improve the information NOAA Fisheries delivers to managers to support decisions on marine spatial planning and in managing fisheries in a sustainable manner.

NOAA also has a need to expand its research, using its unique passive acoustics facilities, to understand the changing global ocean ambient sound environment. Global warming is causing massive changes in the distribution and persistence of high-latitude sea ice. This, in turn, will have an unknown but likely significant impact on the distribution of

protected species of marine mammals which NOAA wants to document using these acoustics assets.

The CI is expected to contribute to NOAA's needs and requirements through a variety of activities including:

- * Development and application of new tools and approaches for monitoring ecosystem health and forecasting ecosystem change and human responses to change;
- * Interpreting digital seafloor imaging, from deep-towed sidescan, optical sensors, submersible and remotely controlled vehicles;
- * Collaborative research on the acquisition, processing and interpretation of T-phase seismic signals obtained through the U.S. Navy's hydrophones to detect and locate tectonic and/or volcanic events occurring along the Juan de Fuca and Gorda Ridges;
- * Assessment of the mechanisms, rates and age of active hydrothermal systems along seafloor spreading centers and volcanic arcs with the eventual end result of quantifying and predicting large-scale spatial and temporal effects of venting on ocean chemical and thermal budgets;
- * Research using passive acoustics to monitor naturally occurring sounds associated with ephemeral volcanic eruptions and marine mammals;
- * Research on the near- and far-field physical and chemical impacts and consequences to ocean ecosystems caused by submarine volcanoes and hydrothermal venting;
- * Collaborative research to define the ecological environment of specialized microbes living in hydrothermal ecosystems;
- * Research on roles of submarine volcanism and hydrothermal activity on ocean nutrient budgets and cycles;
- * Research on roles of submarine volcanism on ocean carbon dioxide budgets and cycles, including relationships to ocean acidification;
- * Research on climate change to forecast impact of global warming on coastal and ocean habitat affecting marine resources due to modification of temperature regimes, ocean acidification, and hypoxia;
- * Monitoring health (productivity) and migration of marine species and projected

economic impacts as related to climate change (temperature, oxygen, salinity, pH, etc.) induced migrations;

- * Research to distinguish marine resource changes due to human impacts from those resulting from natural forcing, including climate variability and change;

- * Development, processing, and analysis of digital geographic data with attributes of bathymetry, photography, chemistry, physical oceanography;

- * Fisheries habitat investigations, to include integrated, multi-layer Geographic Information System (GIS) database development for U.S. West Coast Groundfish to display spatial relationships of seafloor habitat features, oceanographic conditions, fishing activity and fisheries resources;

- * Stock assessment improvement, including population dynamics of West Coast Groundfish, ecosystem and stock assessment (methods to incorporate and evaluate environmental parameters and variance, habitat needs and trophic processes into stock assessments) ;

- * Integrated Ecosystem Assessment of the California Current Ecosystem to establish long term database of critical physical and biological features that characterize the state of the ecosystem as it affects important living marine resources by continuous sampling of established and creation of new hydrographic lines from Washington to California;

- * Assessment of the role of oceanographic conditions on marine survival of pelagic fish resources, particularly forage fish and salmon;

- * Research on watershed and estuarine processes, to include research on estuarine habitats and salmonid life history; surveys of salmon utilization within larger coastal estuaries with a focus on the Columbia River estuary;

- * Research on demersal fish species composition in relations to oxygen minimum zones;

- * Collaborative research and education leading to improved assessments and evaluation of fisheries management strategies and actions;

- * Research focused on detecting and understanding the presence and behavior of marine mammals;

- * Monitoring the health, productivity, and migration pathways and phenology of marine species as it relates to increased climate variability and climate change and estimate the potential economic impacts from any impacts;

- * Research and integration of biological data on species distribution and habitat use into regional programs on coastal marine spatial planning; the information will address key issues

such as renewable ocean energy, aquaculture, and fishing; and

- * Research on fishery resource economics, including effects of fishing regulations on coastal communities.

Five-year Research Plan and 20-Year Research Vision

The proposed CI will also help NOAA meet a number of critical research objectives identified in the Agency's 20-year research vision and 5-year research plan (<http://www.nrc.noaa.gov/plans.html>). The CI's research activities will help NOAA work toward the new paradigm for predicting changes in the global ecosystems, as described in NOAA's 20-year research vision while contributing to the following performance objectives in the 5-year research plan:

- * Increase number of regional coastal and marine ecosystems delineated with approved indicators of ecological health and socioeconomic benefits that are monitored and understood.

- * Increase number of fish stocks managed at sustainable levels.

- * Increase number of coastal communities incorporating ecosystem and sustainable development principles into planning and management.

The CI must possess the capabilities and capacity to collaborate with NOAA scientists in many areas of research related to ecosystems, habitats, and the effect of climate change on these systems.

Ecosystem Assessments

NOAA's activities in ecosystem assessments are directed at providing the necessary information for management decisions. The proposed CI will work with NOAA to determine what data needs to be collected and the appropriate temporal and spatial scale for further integration with physical observations based on expertise and observational research at the CI. These new data will provide the needed information on life history of organisms

and potential benefits of Large Marine Reserves to be useful for resource management.

The CI will complement and assist NOAA in acquiring information concerning the presence, species, and behavior of large marine mammals. This will be accomplished by means of passive acoustic technologies including autonomous devices capable of communicating information from diverse locations throughout the global ocean. The CI will augment this effort with acoustic data for the North Pacific obtained by the NOAA/Navy Sound Surveillance System. In addition, the CI will assist NOAA through monitoring on a bi-weekly to monthly basis the ocean conditions off of central Oregon to maintain the time series used to characterize the northern California current and through research and database development to display spatial relationships among a wide range of physical and biological parameters.

Ecosystem Research

NOAA's ecosystem research focuses on fisheries, protected resources, climate impacts on ecosystems, ocean acidification, local to global physical, chemical, and biological impacts of seafloor processes especially those associated with submarine volcanic and hydrothermal activity, and many other issues. NOAA collaborators would include those in NOAA's Ocean Service, Fisheries Service and Office of Oceanic and Atmospheric Research.

The proposed CI will provide regional ecosystem focus by conducting long-term collaborative research in life history, habitat, and other information needs of targeted marine species, and in guiding the temporal and spatial scale of ocean environment observations required for ecosystem management. Improved observing strategies, modeling approaches, and targeted process studies that will link open ocean processes to improved ecosystem-based management tools by addressing any shortfalls in predictive skill and understanding, and by distinguishing the impacts arising from human activities from natural variability.

The CI is expected to collaborate with NOAA to increase improvements in the understanding of the complicated interactions among the living and non-living components of ecosystems, discovering the biological rules that govern behavior and interactions among the living components, increasing skill in constructing numerical simulations of ecosystems,

and increasing knowledge of the intended and unintended consequences to ecosystems by human use of marine resources.

Specific ecosystems research that will be addressed by the CI is expected to include: characterization of the extent, and health of ecosystems, understanding of the causes and consequences of ecosystem change, increasing the ability to forecast future change to ecosystems and their potential socioeconomic consequence, exploring for new unique or important ecosystems, improving the accuracy and sensitivity of present day tools and technologies to study ecosystems and furthering the capability to educate stakeholders about coastal marine resources issues.

Protected Species

The CI will assist NOAA by contributing to NOAA's responsibilities related to the conservation of certain species listed under the Endangered Species Act, Marine Mammal Protection Act, and other statutes and international treaties and conventions. This contribution will include research and associated monitoring activities to increase the number of protected species that reach stable or increasing population levels, and to increase the number of coastal communities incorporating ecosystem and sustainable development principles into planning and management.

Fisheries Management

Management of Federal fishery resources in the US is entrusted to NOAA. NOAA is charged with maintaining fisheries levels that support sustainable fisheries, their related ecosystems and the communities that depend on them. NOAA achieves this by eliminating over-fishing and rebuilding over-fished stocks, and translating data on key fisheries into useable information. These data are then used to advance a conservation ethic in the public that supports stewardship of marine fisheries.

The CI will assist NOAA in collecting data and monitoring of important commercial and recreational fish stocks and assessing the status of stocks in the California Current. Such assessments are key to managing stocks to eliminate risk of overfishing. Moreover, these

assessments can identify stocks that need immediate management and restoration measures to improve their status. The CI will assist NOAA to ensure it has a sufficient pool of talent to increase capacity of stock assessment scientists in the agency.

Climate Research and Modeling

The overarching goal of the NOAA Ocean Acidification Monitoring Program is to determine trends in ocean acidification and to provide concrete information that can be used to address acidification issues. In the near term, the primary research goal is to develop the monitoring capacity to quantify and track ocean acidification in coastal and open-ocean systems. The CI will be involved with research and monitoring efforts executed at the regional level with strong national coordination directed through NOAA. Monitoring of temporal and spatial trends will be done through moored and ship-based observations of key physical, chemical and biological parameters. The research efforts will be partitioned into observations and data management activities designed to address scientific and economic interests of the United States.

CI facilities will need to complement and expand NOAA's research capacity to provide the CI and NOAA with the necessary infrastructure to study global and regional areas, including:

- * Specialized sampling instruments
- * Analytical chemistry, biology and microbiology labs
- * Marine and electronic engineering facility
- * Instrument repair services
- * Access to a Class 1 or 2 research vessel
- * Access to a supercomputer and very large data storage devices for advanced numerical modeling and data assimilation
- * Acoustic facility with access to the Navy's SOSUS acoustic arrays
- * Sampling programs for areas under-sampled by NOAA programs (e.g., estuaries, coastal areas, deep oceans)

* Fish disease laboratory

The CI will provide access to scientifically-equipped coastal and global ocean class research vessels, crews, and support facilities that can be chartered, when available, on both routine and project-by-project basis for operations relevant to all NOAA programs. The CI may provide access to University-National Oceanographic Laboratory System (UNOLS) vessels as well as research vessels from cooperating institutions in other countries in order to deliver ship support services most economically in all regions of the global ocean.

Additional facilities and capabilities that should be provided by the CI to accomplish collaborate research are:

* Shore Operations - Responsibilities include: (1) Daily Ship Operations, (2) Safety Management, (3) Ship Security Plan, (4) Ship Maintenance

* Mooring Operations and Field Support Capabilities - Includes a wide range of services and an existing inventory of mooring components. This includes resources to provide the coordination of logistics and at-sea support for all types of operations, as well as scientific cruise staging and some level of shop services, such as carpentry, mechanical, electrical, welding and machine and instrument fabrication shop services at dockside. Assistance in handling local, domestic and international consignments would be helpful in this area.

* Drifting sensor systems and ocean sensing gliders - Includes research and development needed to produce moored and drifting sensor systems as well as ocean sensing gliders, and the facilities to fabricate and deploy these platforms in all regions of the global ocean.

* Access to thermally-controlled dechlorinated fresh water and sand-filtered and UV-sterilized seawater at 33 ppt salt, with capability for treatment of effluent contaminants, macroparasites and microparasites prior to discharge.

The CI must possess the capabilities and capacity to conduct research under four

research themes: (1) seafloor processes, (2) marine mammal acoustics, (3) marine ecosystems, and (4) the protection and restoration of marine resources.

(1) Seafloor Processes

Research conducted under this theme will study seafloor hydrothermal and volcanic activity and the associated microbial and archaean communities found near them. The research will use seafloor and water column observations to study the physical mechanisms associated with seafloor processes. This would include ocean environmental relationships between seafloor hydrothermal and volcanic activity and (a) shallow and deep benthic ecosystems (especially those in extreme conditions), (b) the local to global distribution of heat and environmentally important elements and gases (e.g., carbon dioxide and methane), (c) the budgets and cycles of nutrients (e.g., iron, calcium, silica, and phosphorous), and (d) ecosystems which have adapted for existence in environments characterized by low pH due to the seawater solution of volcanic carbon dioxide and/or sulfur dioxide.

(2) Marine Mammal Acoustics

Research conducted under this theme will utilize unique acoustic facilities to study marine mammals by: (a) detecting their presence and identifying vocalizing species, (b) discovering and studying their migration patterns, and (c) studying their responses to stable as well as changing ocean environmental conditions.

(3) Marine Ecosystems

Research conducted under this theme will lead to improved forecasting of the frequency and magnitude of ecosystem processes, particularly in the Pacific Northwest and Alaska. This research includes ecosystem monitoring (including by means of passive acoustics), modeling, and forecasting activities that make extensive use of current and past environmental, ecological and socio-economic data; large-scale environmental and ecological studies as well as focused process studies for understanding ecosystem functions and change; and model development, parameterization and verification and the prototype development of decision-support tools that enable improved regional ecosystem forecasting,

ecosystem management and ecosystem policy decisions. Efforts will likely be interdisciplinary in nature and involve the physical, natural, and social sciences to be brought to bear on the complexity of interactions between people and natural systems at the regional and local level.

(4) Protection and Restoration of Marine Resources

Research that leads to prototype development of technology, research tools, and scientific approaches to effective coastal and marine spatial planning, species recovery and habitat restoration. The research will include biogeographical characterizations that will enable improvements in defining, observing, forecasting, and managing components of marine areas and restoring habitats and managing the harvest of populations to form healthy productive ecosystems in the Pacific Northwest and Alaska. Research under this theme will cover a wide range of needs, such as improved spatial characterization to addressing problems from removing contaminants to providing new materials and techniques to protect underwater cultural resources.

C. Program Authority

15 U.S.C. 1540, 15 U.S.C. 313, 15 U.S.C. 2901 et seq., 118 STAT. 71 (January 23, 2004).

II. Award Information

A. Funding Availability

All funding is contingent upon the availability of Federal appropriations. NOAA anticipates that up to approximately \$7M will be available annually for this CI. Of that amount, approximately \$100,000 will be available per year for Task I. The final amount of funding available for Task I will be determined during the negotiation phase of the award based on availability of funding. The actual annual funding that the CI receives may be less than the anticipated amount and will depend on the actual projects that are approved by NOAA after the main CI award begins, the availability of funding, the quality of the research, the satisfactory progress in achieving the stated goals described in project proposals, and continued relevance to program objectives.

B. Project/Award Period

The award period will be 5 years and may be renewed for up to an additional 5 years based on the outcome of a peer review in the fourth year, as described in the NOAA CI Interim Handbook.

C. Type of Funding Instrument

The funding instrument for this award will be a cooperative agreement since several NOAA organizations will be substantially involved in working with the CI. Examples of substantial involvement may include, but are not limited to, proposals for collaboration between NOAA scientists and a CI scientist and/or assistance by NOAA personnel in developing curricula. If the CI is comprised of multiple member institutions, NOAA will issue only one award to the lead institution that applied for the award and where the CI will be established, in accordance with the commuting distance requirement.

III. Eligibility Information

A. Eligible Applicants

Eligibility is limited to non-Federal public and private non-profit universities, colleges and research institutions that offer accredited graduate level degree-granting programs in NOAA-related sciences and that are within a commuting distance to the NOAA facilities in Newport, Oregon that allows for direct and regular interactions. If the proposed CI is comprised of multiple member institutions, only the lead institution applying for the award (and where the CI will be established) must satisfy the commuting distance requirement.

B. Cost Sharing or Matching Requirement

To stress the collaborative nature and investment of a CI by both NOAA and the research institution, cost sharing is required. There is no minimum cost sharing requirement; however, the amount of cost sharing will be considered when determining the level of the CI's commitment under NOAA's standard evaluation criteria for overall qualifications of applicants. Acceptable cost-sharing proposals include, but are not limited to, offering a reduced indirect cost rate against activities in one or more Tasks, waiver of any indirect costs assessed by the awardee on subawards, waiver of indirect costs assessed against base funds and/or Task I activities, waiver or reduction of any costs associated with the use of facilities at the CI, and full or partial salary funding for the CI director, administrative staff, graduate students, visiting scientists, or postdoctoral scientists.

C. Other Criteria that Affect Eligibility

Not applicable.

IV. Application and Submission Information

A. Address to Request Application Package

The standard application package is available at <http://www.grants.gov>. For applicants without Internet access, an application package may be secured by contacting Dr. John Cortinas, 1315 East West Highway, Room 11326, Silver Spring, Maryland 20910; telephone (301) 734-1090.

B. Content and Form of Application

Proposals must adhere to the provisions under "Proposals" and the requirements under "Required Elements" in this section.

1. Proposals

a. Proposals must include elements requested on the Grants.gov portal. If a hard copy application is submitted, NOAA requests that the original and two unbound copies of the proposal be included.

b. Proposals, electronic or paper, should be no more than 75 pages (numbered) in length, excluding budget, investigators vitae, and all appendices. Federally mandated forms are not included within the page count. Facsimile transmissions and electronic mail submission of full proposals will not be accepted.

2. Required Elements

a. Title page. The title page should clearly indicate the proposed name of the CI, principal investigators, total amount of Federal funds being requested, and award period. Applications submitted by a CI consortium should include the name of each institution and associated principal investigator.

b. Abstract. An abstract must be included and should contain a brief description of the CI, research themes, and proposed activities. The abstract should appear on a separate page, headed with the proposal title, institution's investigators, total proposed cost, and budget period.

c. Results from prior research. The results of related projects supported by NOAA and

other agencies should be described, including their relation to the currently proposed work. Reference to each prior research award should include the title, agency, award number, Principal Investigators, period of award, and total award. The section should be a brief summary and should not exceed two pages.

d. Project Description. The information provided in this section will be used to evaluate the proposal according to NOAA's standard evaluation criteria described in Section V of this document. The project description includes the following sections:

The Goals Section should clearly describe the mission and vision of the CI, and what the CI expects to accomplish during the award.

The Research Theme Section includes information that will help NOAA determine the quality of the CI's capabilities and the expertise at the CI needed to conduct outstanding research in each of the research themes described in Section I.B. This Section also includes project descriptions of research projects that could be conducted by the CI under each theme (or combination of themes), if sufficient funding during the five year award is provided. The selection of this proposal does not preclude the CI from proposing additional research projects after the award has been made as long as they fit under one of the research themes, nor does it obligate NOAA to fund the projects proposed in this application. Following the selection of the award, the CI will be required to provide a complete proposal and budget for each research project funded under the CI award after consulting with the OAR CI Program Director and the NOAA program(s) that provide funding for the project.

The Education Section includes information on NOAA-related education programs offered at the CI's institution(s), including a complete list of terminal degrees in these programs. This Section should also describe how the CI will integrate students and post-docs into the research projects at the CI, as well conduct outreach and education activities in support of the research themes.

The Business Plan should be well-developed and include details regarding fiscal and human resource management, as well as strategic planning and accountability. It must describe the organizational structure of the CI, how it will operate, the responsibilities of the participants from multiple institutions, and how the CI will use the Executive Council and Council of Fellows described in the CI Interim Handbook. The Business Plan must describe

how the CI chooses projects, reviews its progress, as well as how the CI will support enhanced communication and collaborations with NOAA.

The Performance Measures Section must include proposed measures to be used by the CI to gauge, quantify, and/or evaluate progress on projects and the overall performance of the CI. After the award is made, NOAA will work with the CI to finalize a set of performance measures that are acceptable to the CI and NOAA.

Immediately after the CI award has been established, the CI must produce an annual research plan that provides specific information about the research projects described in the Research Themes Section that will be accomplished during the first year. The plan will be developed after consultations with the OAR CI Program Director and the NOAA programs that will provide project funding to the CI. This plan must state the goals and objectives of each project, along with a description of the research that the CI expects to accomplish and a detailed budget for these projects. CI funding for the projects described in this plan will be released upon NOAA's approval of the annual research plan. Funding for subsequent years of the award will require additional annual research plans.

e. Budget. Applicants must submit a Standard Form 424 "Application for Federal Assistance," including a detailed budget using the Standard Form 424A, "Budget Information--Non-Construction Programs," and a Standard Form 424B, "Assurances -- Non-Construction Programs." These and other forms, including Commerce Department Form CD-511 "Certification Regarding Lobbying," and, if applicable, Standard Form SF-LLL "Disclosure of Lobbying Activities," are provided in the Grants.gov application package. Additionally, the CD-512 "Certifications Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions and Lobbying" is required to be submitted with the application package. To do this, download the form from <http://www.cop.noaa.gov/opportunities/grants/pdf/cd512fll.pdf>. Fill out, sign, scan, and attach the form to the application package.

The proposal must include total and annual budgets corresponding to the descriptions provided in the project description not to exceed \$7M annually. NOAA uses the proposed annual budgets to establish a funding limit used by NOAA during the entire award. After award selection, annual funding will be provided only after approval by the NOAA Grants Officer of an annual research plan or any other proposal submitted to NOAA that includes a

detailed budget. While this level of funding is not guaranteed, this amount will allow for the possibility of funding for projects that were not originally planned for the CIA. Annual and total budgets should be stratified by Task and Institution, particularly if the CIA has proposed a reduced indirect cost rate for certain tasks. A budget justification should include information described in the budget guidelines provided in the Grants.gov application package.

f. Vitae. Abbreviated 1-2 page curriculum vitae are sought with each proposal. Reference lists should be limited to all publications in the last 3 years with up to five other relevant papers.

g. Current and pending support. For each principal investigator, submit a list which includes project title, supporting agency with grant number, investigator months, dollar value, and duration. Requested values should be listed for pending support.

C. Submission Dates and Times

The deadline for receipt of proposals at the NOAA/OAR office is 5:00 p.m., E.T., February 11, 2010. Proposals received after the deadline will not be considered. NOAA uses information from Grants.gov to determine whether an application has been submitted before the deadline. If a hard copy proposal is submitted, the original and two unbound copies of the proposal should be included. Paper submissions should be sent to: Dr. John Cortinas, 1315 East West Highway, Room 11326, Silver Spring, Maryland 20910; telephone (301) 734-1090. Hard copy applications will be date/time stamped as they are physically received in the NOAA/OAR office. (Note that late-arriving hard copy proposals provided to a delivery service on or before 5 p.m., E.T., February 11, 2011 will be accepted for review if the applicant can document that the proposal was provided to the guaranteed delivery service by the specified closing date and time and if the proposal is received by OAR no later than 5 p.m., two business days following the closing date.) No email or facsimile proposal submissions will be accepted.

D. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

E. Funding Restrictions

No special restrictions apply.

F. Other Submission Requirements

To use Grants.gov, applicants must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number and be registered in the Central Contractor Registry (CCR). Allow a minimum of five days to complete the CCR registration. [Note: your organization's Employer Identification Number (EIN) will be needed on the application form.] Applicants are strongly encouraged not to wait until the application deadline date to begin the application process through Grants.gov.

All applications must be received by <http://www.grants.gov> by the due date established herein. Proof of timely submission is automatically recorded by Grants.gov. An electronic time stamp is generated within the system when the application is successfully received by Grants.gov. The applicant will receive an acknowledgment of receipt and a tracking number from Grants.gov with the successful transmission of their application. Applicants should print this receipt and save it as proof of timely submission. When NOAA successfully retrieves the application from Grants.gov, Grants.gov will provide an electronic acknowledgment of receipt to the e-mail address of the Authorized Organization Representative (AOR). Proof of timely submission shall be the date and time that Grants.gov receives your application. Applications received by Grants.gov after the established due date for the program will be considered late and will not be considered for funding by NOAA. Please note: Validation or rejection of your application by Grants.gov may take up to two business days after your submission. Please consider the Grants.gov validation/rejection process in developing your application submission time line.

NOAA suggests that applicants submit their applications during the operating hours of the Grants.gov, so that if there are questions concerning transmission, operators will be available to walk you through the process. Submitting your application during the Contact Center hours will also ensure that you have sufficient time for the application to complete its transmission prior to the application deadline. Applicants using dial-up connections should be aware that transmission of applications will take a longer time than when using high speed broadband before Grants.gov receives it. Grants.gov will provide either an error or a successfully received transmission message. Grants.gov reports that some applicants abort the transmission because they think that nothing is occurring during the transmission process. Please be patient and give the system time to process the application. Uploading and

transmitting many files, particularly electronic forms with associated XML schemas, will require more time to be processed. Important: All applicants, both electronic and paper, should be aware that adequate time must be factored into applicant schedules for delivery of the application. Electronic applicants are advised that volume on Grants.gov is currently extremely heavy, and if Grants.gov is unable to accept applications electronically in a timely fashion, applicants are encouraged to exercise their option to submit applications in paper format. Paper applicants should allow adequate time to ensure a paper application will be received on time, taking into account that guaranteed overnight carriers are not always able to fulfill their guarantees.

All applicants are strongly encouraged to submit proposals through the Grants.gov portal. For applicants without Internet access, hard copy proposals will be accepted. The hard copies must be submitted by postal mail, commercial delivery service, or hand-delivery. Proposals must be submitted to: NOAA/OAR, 1315 East West Highway, Room 11326, Silver Spring, Maryland 20910, Attn: Dr. John Cortinas.

V. Application Review Information

A. Evaluation Criteria

Proposals will be evaluated using the standard NOAA evaluation criteria. Various questions under each criterion are provided to ensure that the applicant includes information that NOAA will consider important during the evaluation, in addition to any other information provided by the applicant.

1. Importance and/or relevance and applicability of proposed project to the program goals (25 percent): This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, state, or local activities.

* Does the proposal include research goals and projects that address the critical issues identified in NOAA's 5-year Research Plan, NOAA's Strategic Plan, and the priorities described in the program priorities (see Section I.B.)?

* Is there a demonstrated commitment (in terms of resources and facilities) to enhance existing NOAA and CI resources to foster a long-term collaborative research environment/culture?

* Is there a strong education program with established graduate degree programs in NOAA-related sciences that also encourages student participation in NOAA-related research studies?

2. Technical/scientific merit (30 percent): This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives.

- * Does the project description include a summary of clearly stated goals to be achieved during the five year period that reflect NOAA's strategic plan and goals?

- * Does the CI involve partnerships with other universities or research institutions, including Minority Serving Institutions and universities that can contribute to the proposed activities of the CI?

3. Overall qualifications of applicants (30 percent): This criterion ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project.

- * If the institution(s) and/or Principal Investigators have received current or recent NOAA funding, is there a demonstrated record of outstanding performance working with NOAA and/or NOAA scientists on research projects?

- * Is there nationally and/or internationally recognized expertise within the appropriate disciplines needed to conduct the collaborative/interdisciplinary research described in the proposal?

- * Is there a well-developed business plan that includes fiscal and human resource management, as well as strategic planning and accountability?

- * Are there any unique capabilities in a mission-critical area of research for NOAA?

- * Has the applicant shown a substantial investment to the NOAA partnership, as demonstrated by the amount of the cost sharing contribution?

4. Project costs (5 percent): The budget is evaluated to determine if it is realistic and commensurate with the project needs and time-frame.

5. Outreach and education (10 percent): NOAA assesses whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources.

B. Review and Selection Process

An initial administrative review/screening is conducted to determine compliance with requirements/completeness. All proposals will be evaluated and individually ranked in accordance with the assigned weights of the above-listed evaluation criteria by an independent peer review panel. At least three experts, who may be Federal or non-Federal, will be used in this process. If non-Federal experts participate in the review process, each expert will submit an individual merit review and there will be no consensus opinion. The merit reviewers' ratings are used to produce a rank order of the proposals. The Selecting Official selects proposals after considering the peer reviews and selection factors listed below. In making the final selections, the Selecting Official will award in rank order unless the proposal is justified to be selected out of rank order based upon one or more of the selection factors. The Selecting Official makes the final award recommendation to the Grants Officer authorized to obligate funds.

C. Selection Factors

The merit review ratings shall provide a rank order to the Selecting Official for

final funding recommendations. The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding.
2. Balance/distribution of funds: a. Geographically. b. By type of institutions. c. By type of partners.
d. By research areas. e. By project types.
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other Federal agencies.
4. Program priorities and policy factors.
5. Applicant's prior award performance.
6. Partnerships and/or participation of targeted groups.
7. Adequacy of information necessary for NOAA staff to make a National Environmental Policy Act (NEPA) determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

D. Anticipated Announcement and Award Dates

October 1, 2011 should be used as the proposed start date on proposals. The announcement of the award is expected by the end of May 2011.

VI. Award Administration Information

A. Award Notices

The notice of award is signed by the NOAA Grants Officer and is the authorizing document. It is provided by electronic notification or postal mail to the appropriate business office of the recipient organization. OAR will notify unsuccessful applicants in writing either electronically or by postal mail. Those proposals that are not ultimately selected for funding will be destroyed.

B. Administrative and National Policy Requirements

1. The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of February 11, 2008 (73 Fed. Reg. 7696), are applicable to this solicitation.

2. Limitation of Liability. Funding for this program is contingent upon congressional appropriations. In no event will NOAA or the Department of Commerce be responsible for application preparation costs if these programs fail to receive funding or are cancelled because of other agency priorities. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

3. National Environmental Policy Act (NEPA). NOAA must analyze the potential environmental impacts, as required by NEPA, for each project seeking NOAA funding. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: www.nepa.noaa.gov, including our NOAA Administrative Order 216-6 for NEPA, http://www.nepa.noaa.gov/NAO216_6_TOC.pdf, and the Council on Environmental Quality implementation regulations, http://ceq.hss.doe.gov/nepa/regs/ceq/toc_ceq.htm. After the award has been made, the recipient is required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems) for each project proposed under this award. In addition to providing specific information that will serve as the basis for any required impact analyses, the recipient may also be requested to assist NOAA in drafting

an environmental assessment, if NOAA determines such assessment is required. The recipient will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of its proposal. The failure to cooperate with NOAA shall be grounds for not funding a particular project. In cases where additional information is required after a project is selected, funds can be withheld by the NOAA Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to assess any impacts that a project may have on the environment.

4. Universal Identifier. Applicants should be aware that, they are required to provide a Dun and Bradstreet Data Universal Numbering System (DUNS) number during the application process. See the October 30, 2002 Federal Register, Vol. 67, No. 210, pp. 66177-66178 for additional information. Organizations can receive a DUNS number at no cost by calling the dedicated toll-free DUNS Number request line at 1-866-705-5711 or via the internet (<http://www.dunandbradstreet.com>).

C. Reporting

Financial reports are to be submitted to the NOAA Grants Officer and Performance (technical) reports are to be submitted to the NOAA Program Officer annually. Near the end of each award year, NOAA will provide the CI with guidance on what information should be submitted as part of the annual performance report. This information will be used by NOAA to assess the quality of the research and provide NOAA with general information about the quality of activities at the CI, including how many students are participating, scientific output, and number of employees associated with the CI receiving NOAA support. Reports should be submitted electronically through NOAA's Grants Online system or on paper if no computer access is available.

VII. Agency Contacts

Dr. John Cortinas, 1315 East-West Highway, Room 11326, Silver Spring, Maryland 20910; telephone (301)734-1090; email: John.Cortinas@noaa.gov.

VIII. Other Information

A. Freedom of Information Act

U.S. Department of Commerce regulations implementing the Freedom of Information Act (FOIA) are found at 15 C.F.R. Part 4, "Public Information." These regulations set forth rules for the Department regarding making requested materials, information, and records

publicly available under the FOIA. Applications submitted in response to this Federal Funding Opportunity may be subject to requests for release under the Act. In the event that an application contains information or data that the applicant deems to be confidential commercial information which is exempt from disclosure under FOIA, that information should be identified, bracketed, and marked as "Privileged, Confidential, Commercial or Financial Information." Based on these markings, the confidentiality of the contents of those pages will be protected to the extent permitted by law.

B. Permits and Approvals

It is the applicant's responsibility to ensure that all necessary Federal, state and local government permits and approvals for the proposed work to be conducted are obtained and effective before any research begins. Permits for proposed projects can be held by any formally and substantially involved collaborator, including a NOAA collaborator, provided the collaborator is receiving or providing resources associated with this announcement and related awards. Failure to apply for and/or obtain Federal, state, and local permits, approvals, letters of agreement, or failure to provide environmental analysis, when necessary, will eliminate any further consideration of a proposed project for funding.